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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/690,761

10/22/2003

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09/25/2006

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EXAMINER

ADDISU, SARA

ART UNIT

PAPER NUMBER

3722

DATE MAILED: 09/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

DETAILED ACTION

Specification

- The abstract of the disclosure is objected to because it is in claim format and contains legal phraseology, e.g. "comprising".. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claim 2 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 2, recites "...deformation is partially irreversible". The disclosure does not clarify what Applicant considers to be "partially". The disclosure describes either reversible deformation or irreversible deformation but not "partially irreversible". For the purpose of this Office Action, Examiner is interpreting it as being irrever³able.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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2. Claims 1, 2 4-7, 11 and 17-20, as best understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Kuroyama et al. (USP 5,183,362).

Kuroyama et al. teaches a tool insert having a cemented carbide insert body (1) and an abrasive tip (3) the abrasive tip and the insert body containing mating geometric features (i.e. tip 3 is attached to recess 2 of the insert body) ('362, figures 5 & 6). The tip and insert are assembled together by soldering/placing in an oven of high temperature (600- 800 degree Celsius) which of course irreversibly deforms the mating surfaces (this is equivalent to what is claimed in claim 1, i.e. mechanical forces derived from deformation of the mating geometrical features on the abrasive tip and / or the insert body) ('362, abstract, Col. 4, lines 30+ and Col. 5, lines 8-11).

3. Claims 1, 3, 9-16, 22 and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Murakami (USP 5,846,032).

Murakami teaches a tool insert (2) having a body (4) with plurality of elastic deformation sections (8) and an abrasive tip (5), wherein the abrasive tip and the insert body containing mating geometric features ('032, figure 1). The elastic deformation sections (8) allow the geometric features to be interlockable. Regarding claims 12 and 15, pressing the tip into section (8) secures the tip (i.e by press fitting/interference fit).

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Regarding claims 9, 10, 22 and 23, Murakami teaches the insert having a wedge portion ('032, figure 4).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 8, 21 and 24 rejected under 35 U.S.C. 103(a) as being unpatentable over Kuroyama et al. (USP 5,183,362) in view of Kanada et al. (U.S. Pub # 2002/0190105).

Kuroyama et al. teaches a tool insert having an abrasive tip, as set forth in the above rejection.

However, Kuroyama et al. fails to teach the insert being coated.

Kanada et al. teaches an insert (1) having a coating layer formed on its surface via a physical vapor deposition method or a chemical vapor deposition method, comprising at least one element selected from the group consisting of elements belonging to groups IVa, Va, VIa in the periodic table and elements Al, Si, and B, or at least one compound selected from the group consisting of nitride, carbide, or oxide of at

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least one metal selected from this group, and their solid solutions ('105, page 4, paragraph 50).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to apply a coating to Kuroyama et al.'s insert, as taught by Kanada et al., for the purpose of improving the cutting performance of the insert ('105, page 4, right column, lines 8-10).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sara Addisu at (571) 272-6082. The examiner can normally be reached on 8:30 am - 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Monica Carter can be reached on (571) 272-4475. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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SA
9/16/06

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